WE CLAIM

1. A method of determining a characteristic of a printing cartridge, the method comprising the step of actuating a number of capacitive sensors within an array of such sensors with an actuating formation positioned on the printing cartridge, the actuating formation representing data relating to a characteristic of the cartridge, so that the capacitive sensors, when actuated, generate a signal carrying data relating to that characteristic.

2. A method as claimed in claim 1, wherein the characteristic of the printing cartridge relates to a media colorant of the printing cartridge.

3. A method as claimed in claim 2, wherein the data represented by the actuating formation relates to at least one of: a serial number identifying the media colorant, a type of the media colorant, a viscosity of the media colorant, a surface tension of the media colorant, optical characteristics of the media colorant and an optimal ink drop volume corresponding to a type of media.

4. A method as claimed in claim 1, wherein the characteristic of the printing cartridge relates to a media of the printing cartridge.

5. A method as claimed in claim 4, wherein the data represented by the actuating formation relates to at least one of: a serial number identifying the media, a type of the media and a length of the media.

6. A method as claimed in claim 1, wherein the characteristic of the printing cartridge relates to a media and a media colorant of the printing cartridge.

7. A method as claimed in claim 6, wherein the data represented by the actuating formation relates to at least one of: a serial number identifying the media, a serial number identifying the media colorant, a length of the media, a type of the media, a viscosity of the media colorant, a surface tension of the media colorant, optical characteristics of the media colorant and an optimal ink drop volume of the media colorant corresponding to the type of media.

8. A method as claimed in claim 1, wherein a conductive material defines the actuating formation so that the actuating formation and a capacitive plate of each of said number of capacitive sensors define a capacitor.

9. A method as claimed in claim 8, in which the actuating formation is defined by a plurality of projections that extend from the housing in an array which represents the data relating to said characteristic, each projection corresponding with a capacitive plate of each capacitive sensor of said number of capacitive sensors.

10. A method as claimed in claim 1, in which the actuating formation is the product of an injection micromolding process.

11. A method as claimed in claim 1, in which the array of capacitive sensors is in the form of a ceramic metal oxide semiconductor (CMOS) device.

12. A method as claimed in claim 11, in which the array of capacitive sensors includes a substrate having dielectric properties, the substrate defining a contact surface against which the actuating formation bears, with each capacitive sensor including a capacitor plate positioned in the substrate, and spaced from the contact surface, so that, when the actuating formation bears against the contact surface, the capacitor plate and the actuating formation define a capacitor.

13. A method as claimed in claim 12, in which the capacitor plates are positioned so that capacitor plates of predetermined combinations of capacitor plates correspond with projections of the actuating formation, to define capacitors having a capacitance that represents the data relating to the media colorant

14. A method as claimed in claim 13, in which the array of capacitive sensors incorporates circuitry to determine said capacitance.